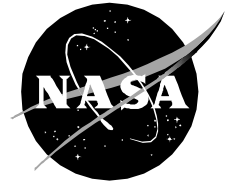




SEE

Bulletin



NASA's Space Environments and Effects Program

April 2001



SPECIAL ISSUE



SEE PROGRAM TO RELEASE NEW NASA RESEARCH ANNOUNCEMENT (NRA)

*The following information may be used for planning
purposes for an upcoming SEE NRA solicitation.*

The National Aeronautics and Space Administration's (NASA) Space Environments and Effects (SEE) Program is planning to issue a new NASA Research Announcement (NRA) in July, 2001, for an award in the first quarter of FY02. This NRA will be preceded by a workshop to define the requirements for the NRA. The NRA will be developed directly from the inputs provided by the workshop.

In partnership with industry, academia, and other government agencies, the SEE Program defines the different space environments and provides technology development to accommodate or mitigate these harmful environments to the spacecraft. The program provides

a very comprehensive and focused approach for understanding the space environment, defines the best techniques for both flight and ground-based experimentation, updates the models which predict both the environments and the environmental effects on spacecraft, and finally, ensures that this information is properly maintained and inserted into spacecraft design programs. This is accomplished by:

- Advocating technology development, flight experiments, and databases by creating and maintaining:
 - Engineering Environments Definitions
 - Up-to-date Engineering Focused Models
 - Environmental and Materials Databases
 - Engineering Design Guidelines
 - Flight/Ground Simulation/Technical Assessments
 - Integrated Assessment Tools
 - Simplified Access to Modeling/Assessment Tools

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SEE PROGRAM TO RELEASE NEW NASA RESEARCH ANNOUNCEMENT (NRA)

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- Maintaining cutting edge expertise in SEE-related technologies by:
 - Coordination with other agencies, industry, and academia
 - The incorporation of technical experts and specialists
 - Sustained awareness of state-of-the-art SEE technologies
- Heightening the awareness of SEE significance and program capabilities through:
 - Internet Access
 - Bulletin
 - Displays
 - Workshops
 - Publications

The NRA will solicit investigations in the following topic areas of interest to the SEE Program*:

- Electromagnetic Effects
- Spacecraft Charging
- Materials & Processes
- Meteoroid & Orbital Debris
- Ionizing Radiation
- Neutral External Contamination

The SEE Program is seeking proposals for the development of technology as described above. The solicited efforts by this NRA will be seeking eligible proposals for one, two and three year efforts and are expected to be funded by first quarter FY02.

Current plans call for a total NRA budget of approximately \$1.35M. Proposals will be solicited from one to three years, not to exceed \$150K per year. One to two year proposals are highly recommended. However, these details are only tentative and may be used for planning purposes only. See the Commerce Business Daily (CBD) announcement and NRA for final figures and details in the coming months. The CBD announcement and NRA web address will be advertised on the SEE website as well as sent out by electronic mail.

The NRA will be open to US participants only.

**** This NRA will not solicit investigations from all technical areas of the SEE Program. Ionosphere & Thermosphere investigations will not be eligible for selection in this NRA. The SEE Program has a major effort just beginning in this area that satisfies the current Ionosphere & Thermosphere technical requirements.***

TWG AND WORKSHOP INFORMATION

The SEE NRA scheduled to be issued in July, 2001, will be the first NRA released directly by the SEE Program since 1997. To prepare for this solicitation, the SEE Program must accomplish three things:

- First, the SEE Program will update and revise its TWG membership in order to more accurately reflect the current interest in the SEE Program. This update to our databases will strengthen our TWG's by having only those people who want to participate involved in our technical activities and NRA process. The SEE Program will soon distribute to the existing TWG members electronic letters of invitation that you may use to continue your membership. No response will be considered a request for removal from SEE's TWG and electronic mailing list. A May 25th deadline has been set to renew your TWG membership.
- Secondly, if you are not currently a TWG member and would like to become one, please contact one of the SEE Program Office POC's below and you will be added. Membership is open to all who wish to participate. A May 25th deadline has been set for new TWG memberships.
- Thirdly, a workshop will be held during June 26th, 27th and 28th in Huntsville, Alabama, to define the requirements of the NRA. This workshop is not open to the SEE community at large so that we may restrict the scope of the NRA to only those technical areas of interest within the TWG's. Only TWG members will be able to participate in the workshop. The workshop will be open for US participants only. Additional information concerning the workshop, hotel accommodations, on-line registration, etc., will soon be posted on the SEE website and will be distributed electronically.

ADDITIONAL INFORMATION

The SEE Program Office has been working diligently over the last two years with NASA Headquarters to address resource limitations we have experienced. During this time, the SEE Program's main sponsor transferred from the Space Science Enterprise (Code S) to the Aerospace Technology Enterprise (Code R). Due to working closely with Code R, the SEE Program's resource outlook beginning in FY02 is quite favorable. We are very happy that NASA Headquarters has agreed that the SEE Program is a valuable resource for our community.

CONTACT INFORMATION:



The SEE website at <http://see.msfc.nasa.gov> will provide information on the workshop and upcoming NRA release. The website also contains past collected information and efforts funded by the SEE Program.

Program officials may be contacted as follows:

Billy Kauffman (256) 544-1418
billy.kauffman@msfc.nasa.gov

Jody Minor (256) 544-4041
jody.minor@msfc.nasa.gov

Donna Hardage (256) 544-2342
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Now AVAILABLE!



SATELLITE CONTAMINATION AND MATERIALS OUTGASSING KNOWLEDGEBASE

- *ASTM E1559 Data*
- *On-Orbit Quartz Crystal Microbalance (QCM) Data*
- *Midcourse Space Experiment (MSX) Data*
- *PDF Format Reference Material*
- *Browser-Based Plotting Capability*
- *Global Key-Word Search Capability*
- *Glossary of Terms*
- *On-Line Help Capability*

The Knowledgebase may be downloaded from SEE's website at:
<http://see.msfc.nasa.gov>

For more information contact:

Ms. Donna Hardage
256-544-2342
donna.hardage@msfc.nasa.gov

UPCOMING EVENTS:

2001 SPACECRAFT CONTAMINATION AND COATING WORKSHOP

August 1-2, 2001

University of Maryland University College, College Park, MD

For further information, please contact:

<http://watt-a-server.gsfc.nasa.gov/news.htm>

Phil Chen, philip.chen@gsfc.nasa.gov, (301) 286-8651

The objective of the workshop is to provide a forum for exchanging new developments in spacecraft contamination and coatings. The theme of the workshop is a complete contamination control program from the mission inception to on-orbit operation and/or hardware retrieval.

The workshop will be held at the Inn and Conference Center of the University of Maryland University College, Maryland, starting at 8:30 AM on Wednesday, August 1st, and ending at 5:00 PM on Thursday, August 2nd, 2001. The fee will be \$120 per person and include registration for the workshop and lunch for both days. A block of rooms for attendees has been reserved at the [Inn and Conference Center <http://www.umuc.edu/icc/icc_home.html>](http://www.umuc.edu/icc/icc_home.html) UMUC (1-800-831-4004) which is located at College Park, Maryland.

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SEE Technical Working Group Workshop Results

SEE NRA Results

SEE Program Office

Mail Stop ED03

Marshall Space Flight Center, AL 35812